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| #2 | (three dimensional reticular structure <in>metadata) |

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May 12 2005 at 10:13:56

Search: interconnected foams

Search: interconnected foams AND wiring tape



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ANSWER 22 © 2005 ACS on STN

Title

Silicone foam comprising interconnected voids

Inventor Name

Ferguson, Terrell W.

Patent Assignee

Radiant Holdings, Llc, USA

Publication Source

PCT Int. Appl., 18 pp.

Identifier-CODEN

PIXXD2

Patent Information

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|---|----------|-----------------|----------|
| WO 2003018280 | A2 | 20030306 | WO 2002-US27071 | 20020823 |
| WO 2003018280 | A3 | 20030417 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| EP 1427577 | A2 | 20040616 | EP 2002-766099 | 20020823 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | |
| US 2004176841 | A1 | 20040909 | US 2003-480400 | 20031209 |
| US 2004176493 | A1 | 20040909 | US 2003-480401 | 20031209 |

Priority Application Information

| | | |
|-----------------|---|----------|
| US 2001-314988P | P | 20010824 |
| US 2001-344164P | P | 20011227 |

| | | |
|-----------------|---|----------|
| US 2002-351783P | P | 20020125 |
| WO 2002-US27071 | W | 20020823 |
| WO 2002-US27072 | W | 20020823 |

Abstract

A foam material is provided that is formed from a body of silicone having a cellular structure formed by a plurality of interconnected voids. The voids have a relatively high vol. of between about 0.06545 to about 268.0832 mm³ and more typically about 65.45 to about 179.5948 mm³. The foam material displays unique tactile properties.

International Patent Classification

International Patent Classification, Main

B29C

Document Type

Patent

Language

English

Supplementary Indexing

silicone foam interconnected void

IT Related Fields

Indexing

Concept Group

Concept Heading

Plastic foams

Concept Group

Concept Heading

Polysiloxanes, uses

Role

PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

Text Modification

(silicone foam comprising interconnected voids)

Accession Number

2003:173515 CAPLUS

Document Number

138:206165

Search: interconnected foams AND pubyear: 0000-1998



Display from CAplus

ANSWER 13 © 2005 ACS on STN

Title

Foamed polyurethans

Inventor Name

Brower, Frank M.

Patent Assignee

Dow Chemical Co.

Patent Information

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|-------|----------|-----------------|-------|
| ----- | ----- | ----- | ----- | ----- |
| GB 846821 | | 19600831 | GB | <-- |

Abstract

Polypropylene ether glycol (mol. wt. 2000) was activated with 0.5 wt. % Na₂O₂ by heating it for several min. at 80°. It was then stirred with 15–50 wt. % tolylene diisocyanate until the viscosity of the mixt. reached 8000–16,000 cp. H₂O was added, in an amt. ranging from 1 mole/mole of unreacted diisocyanate to 15 wt. % of the reaction mixt.; this caused the mixt. to foam. Reaction products were tough, resilient, elastic foams, wettable by H₂O, and had interconnected cells. Polybutylene ether glycol was also used. If desired, a catalyst could be added to the reaction mixt.

Document Type

Patent

Language

Unavailable

IT Related Fields

Indexing

Concept Group

Concept Heading

Urethan polymers

Text Modification

(cellular, from tolylene diisocyanate reaction products with polybutylene or polypropylene glycols)

IT Related Fields

Indexing

Concept Group

Concept Heading

Porous materials

Text Modification

(from urethan polymers, from polybutylene or polypropylene glycols)

IT Related Fields

Indexing

Heading Parent Group

Heading Parent

1,4-Butanediol

Name Modification

ethers (poly-), polyurethans from tolylene diisocyanate

IT Related Fields

Indexing

Heading Parent Group

Heading Parent

Glycol

Name Modification

polybutylene

Heading Parent Group

Heading Parent

Glycol

Name Modification

polypropylene

Text Modification

(foamed polyurethans from tolylene diisocyanate and)

IT Related Fields

Indexing

Heading Parent Group

Heading Parent

Isocyanic acid

Name Modification

methylphenylene ester, polymer with polybutylene glycol

Text Modification

(polyurethan foams from)

IT Related Fields

Indexing

Registry Number and Structure

CAS Registry Number

26471-62-5

Author Substance Name

Toluene, diisocyanato-

Text Modification

(foamed polyurethans from polybutylene or polypropylene glycols and)

IT Related Fields

Indexing

Registry Number and Structure

CAS Registry Number

9057-91-4

Author Substance Name

Isocyanic acid, methylphenylene ester, polymer with polypropylene glycol

Text Modification

(polyurethan foams from)

Accession Number

1961:51687 CAPLUS

Document Number

55:51687

Reference Non-Patent Information

55:9951b-d



Display from CAPLUS

ANSWER 12 © 2005 ACS on STN

Title

Open-pore polyurethane product

Inventor Name

Jefferson, Robert T.; Salyer, Ival O.

Patent Assignee

United States Atomic Energy Commission

Publication Source

U.S., 7 pp.

Identifier-CODEN

USXXAM

Patent Information

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|--------------|
| US 3574150 | A | 19710406 | US 1969-828647 | 19690528 <-- |
| US 3897221 | A | 19750729 | US 1971-185002 | 19710930 <-- |
| US 27917 | E | 19740212 | US 1971-185643 | 19711001 <-- |

Priority Application Information

| | | |
|----------------|----|----------|
| US 1966-586923 | A2 | 19661017 |
| US 1969-828647 | A2 | 19690528 |
| US 1970-54298 | A1 | 19700713 |

Abstract

Open-pore polyurethane foams useful as cigaret filters and oil absorbents were prep'd. having porosity .gt;eq.50%, d. 0.1-0.5 g/cm³, and comprising coherent spherical particles of .lt;eq.10 micron diam. separated by interconnected interstices. Thus, a toluene soln. of a polyol prep'd. by treating diethylenetriamine with propylene oxide was blended with a soln. of a mixt. of p,p'-diphenylmethane diisocyanate oligomers to form a mixt. having an NCO-OH ratio of 1. The mixt. was stirred <1 min, and the ungelled soln. was poured into a mold and polymd. to ppt. the polyurethane, which was evaporated. The product had a compression strength at 10% deflection 370-85 psi with full recovery, porosity 82%, and d. 0.24 g/cm³.

International Patent Classification

C08G

Document Type

Patent

Language

English

Supplementary Indexing

polyurethane open pore filters; oil absorbent polyurethane; isocyanates polyurethane prep'n; polyol polyurethane prep'n; cigaret filters; foams polyurethane

IT Related Fields**Indexing****Concept Group****Concept Heading**

Urethane polymers, preparation

Role

PREP (Preparation)

Text Modification

(cellular, open-pore)

Accession Number

1971:406891 CAPLUS

Document Number

Search: interconnected foams

Search: interconnected foams AND pubyear: 0000-1997



Display from COMPENDEX

ANSWER 2 © 2005 EEI on STN

Title

Aligned graphitic carbon foams from mesophase pitch.

Author

Dutta, D. (Wright Materials Research, Dayton, OH, USA); Hill, C.S.

Meeting Title

Proceedings of the 1994 International Mechanical Engineering Congress and Exposition.

Organization

ASME

Meeting Location

Chicago, IL, USA

Meeting Date

06 Nov 1994-11 Nov 1994

Publication Source

Cellular and Microcellular Materials American Society of Mechanical Engineers, Materials Division
(Publication) MD 53 1994.ASME, New York, NY, USA.p 63-70
CODEN: AMEMD9

Publication Year

1994

Meeting Number

42353

Document Type

Conference Article

Treatment Code

Experimental

Language

English

Abstract

This paper discusses the processing of microcellular graphitic foams from a carbon fiber precursor, anisotropic pitch. It has been predicted that foams with interconnected strut networks of aligned graphite crystallites will have attractive mechanical properties. The elongational stress during the blowing process is expected to align the mesogenic units of pitch along the struts, producing a morphology resembling that of carbon fibers. The objective of these processing studies has been to obtain open celled foams with strut cross-sectional dimensional scale on the order of traditional graphite fibers (7–10 μm). Microcellular pitch foams were processed with both homogenous and heterogeneous nucleation techniques. The pitch foams were then oxygen stabilized, carbonized and graphitized over a range of conditions. Typically, the cell sizes were of the order of 70–80 μm and the struts 5–10 μm. The appropriate processing conditions for obtaining this foam morphology has been identified. The effect of saturation pressure on foam porosity was studied. (Author abstract) 10 Refs.

Classification Code

804.2 Inorganic Components; 913.4 Manufacturing; 819.2 Synthetic Fibers; 421 Strength of Building Materials. Mechanical Properties; 931.1 Mechanics; 816.1 Plastics Processing

Controlled Indexing

*Foams; Pressure effects; Mechanical properties; Stresses; Blow molding; Morphology; Porosity; Carbon; Processing; Carbon fibers

Supplementary Indexing

Graphitic carbon foam; Graphitic crystallites; Mesophase pitch; Elongational stress; Microcellular graphitic foam; Open celled foam; Anisotropic pitch; Nucleation technique; Strut network

Accession Number

1995 (12) : 4198 COMPENDEX

Search: Three adj dimensional reticular structure AND pubyear: 0000–1997

Session Cost: \$22.46